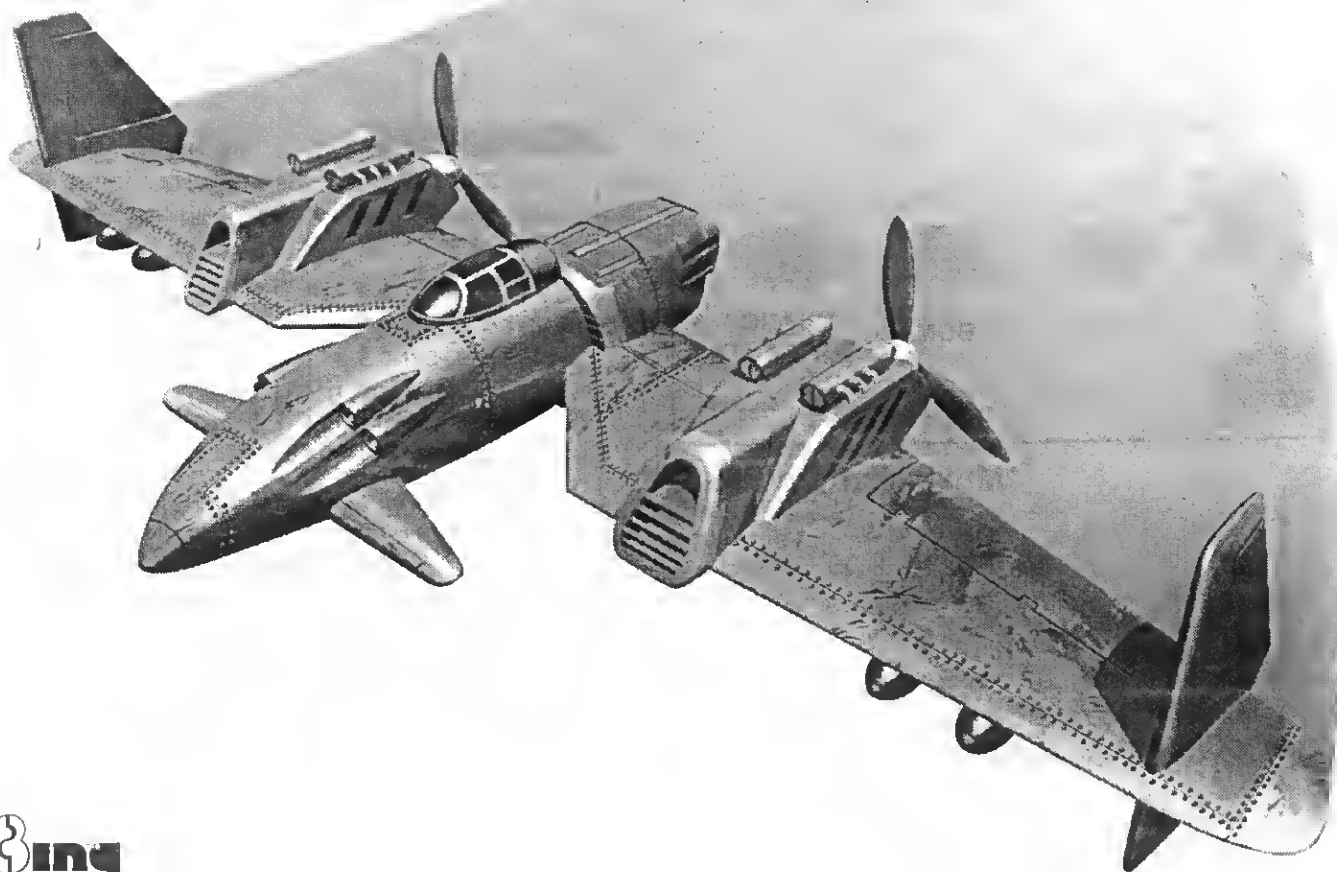# BATTLE BAKRAID

## OPERATOR'S MANUAL

(BBI-01W)

[Important Safety Instructions]

· Turn off power before installation and removal of the circuit board.
· Turn off power before changing the setting of any DIP switch.
· Use board edge connectors that conform to the JAMMA standard.
· Do not touch the heat sink or components when you hold the board since the heat sink and some components are very hot.
· Set the board so that the heat sink is always well ventilated.
· Avoid strong physical shock on the board and do not get it wet.
· Do not disassemble or rebuild the board.

[Contents]

· Manual   (BBI-01W)   1 copy
· Instruction card   (BBI-02W)   1 copy
· Circuit board   1 board

[Settings]

· Edge connector on circuit board   JAMMA Standard
· Monitor Direction   VERTICAL SCREEN
· Supply voltages to the board
        +5V(2A or greater) +12V(1A or greater)
        (Maintain each voltage within ±5% range.)
· Control Panel

Eight direction lever

PUSH 1   PUSH 2   PUSH 3

SHOT   BOMB   CHANGE
                            FORMATION
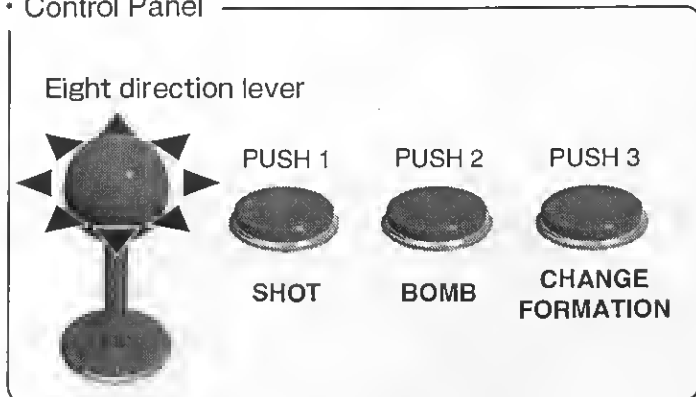
*Maximum credits-9.

[Pin Assignment]

JAMMA Standard

SOLDER SIDE			PARTS SIDE
GND	A	1	GND
GND	B	2	GND
+5V	C	3	+5V
+5V	D	4	+5V
N.C.	E	5	N.C.
+12V	F	6	+12V
	H	7	
COIN COUNTER 2	J	8	COIN COUNTER 1
(COIN LOCK OUT 2)	K	9	(COIN LOCK OUT 1)
SP(−)	L	10	SP(+)
N.C.	M	11	N.C.
VIDEO GREEN	N	12	VIDEO RED
VIDEO SYNC	P	13	VIDEO BLUE
SERVICE SW	R	14	VIDEO GND
N.C.	S	15	
COIN SW 2	T	16	COIN SW 1
START SW 2	U	17	START SW 1
2P UP	V	18	1P UP
2P DOWN	W	19	1P DOWN
2P LEFT	X	20	1P LEFT
2P RIGHT	Y	21	1P RIGHT
2P PUSH 1	Z	22	1P PUSH 1
2P PUSH 2	a	23	1P PUSH 2
2P PUSH 3	b	24	1P PUSH 3
N.C.	c	25	N.C.
N.C.	d	26	N.C.
GND	e	27	GND
GND	f	28	GND

[Test Mode]

To enter test mode, set DIP switch 1-1 on the board ON, and then turn on power.

Caution: Turn off power before changing the setting of any DIP switch.

Select a test item by moving the 1P lever to the appropriate vertical position and press the 1P PUSH1. The screen for the selected test item appears.

```
BATTLE BAKRAID


    > GAME MODE

      OIP SWITCH SETTING

      TEXT TEST

      OBJECT TEST

      CHARACTER TEST

      MAP TEST

      SOUND TEST

      EEPROM INITIALIZE
```

<Test Menu>
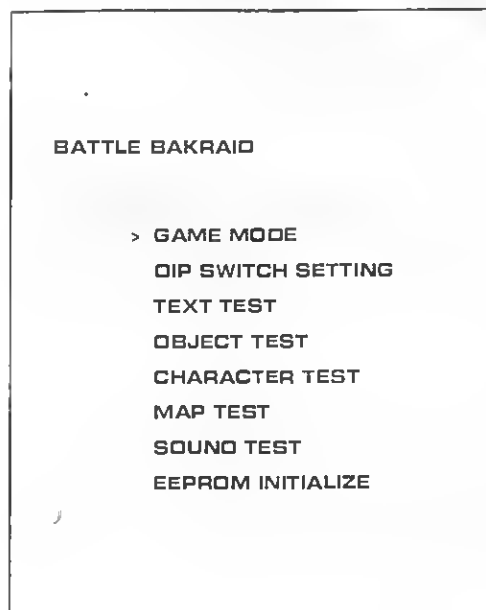
1. GAME MODE
   Brings you to the game screen for checking.

2. DIP SWITCH SETTING
   Allows you to perform input tests, DIP switch setting tests, and monitoring screen checking.

3. TEXT TEST
   Allows you to check text to be used during the game.

4. OBJECT TEST
   Allows you to check the objects to be used during the game.

5. CHARACTER TEST
   Allows you to check the characters to be used during the game.

6. MAP TEST
   Allows you to check the maps to be used during the game.

7. SOUND TEST
   Allows you to check the sound to be used during the game.

8. EEPROM INITIALIZE
   Clears the contents of the SAVE data.
   Caution: Selecting this mode clears the backed-up SAVE data and returns to the initial state.

[DIP Switch Settings]

Allows you to perform input tests, DIP switch setting tests, and monitoring screen checking.

Selecting this mode on the TEST MENU screen initiates the ROM RAM CHECK. On the screen after the ROM RAM CHECK, pressing the 1P and 2P start buttons simultaneously brings you to the IO CHECK screen.

```
             OIP SWITCH SETTING

OIP SWITCH 1
1 ON    TEST MODE          TEST
2 OFF   STARTING COIN      1 CREDIT
3 OFF   COIN 1
4 OFF          1 COIN      1 CREDIT
S OFF
6. OFF  COIN 2
   OFF         1 COIN      1 CREDIT
   OFF

OIP SWITCH 2
1 OFF   START RANK         NORMAL
2 OFF
3 OFF   TIMER RANK         NORMAL
4 OFF
S OFF   PLAYER COUNTS      3
6 OFF
7 OFF   EXTRA PLAYER       2000000
B OFF                      EACH

OIP SWITCH 3
1 OFF   SCREEN FLIP        OFF
2 OFF   OEMO SOUND         ON
3 OFF   STAGE EOIT         OISABLE
4 OFF   CONTINUE PLAY      ENABLE
S OFF   INVINCIBLE         OFF
6 OFF   SCORE RANKING      SAVE
7 OFF — NO USE
B OFF   NO USE

       PRESS 1P & 2P START
     — TO CHANGE TEST ITEMS
```

2. DIP SWITCH SETTING screen

1. IO CHECK screen
   Lets you test switches, buttons, and the lever of the machine.
   If the screen changes from OFF to ON after you press a switch, a button, and the lever, the machine is verified as normal.
   Pressing the 1P and 2P start buttons simultaneously brings you to the DIP SWITCH SETTING screen.

2. DIP SWITCH SETTING screen
   Lets you check the settings of the DIP switches on the board, such as the type of coin and the degree of difficulty.
   (See the table of DIP switch settings for each setting.)
   Caution: Turn off power before changing the setting of any OIP switch.
   Check the settings only on the DIP SWITCH SETTING screen.
   Pressing the 1P and 2P start buttons simultaneously brings you to the COLOR CHECK screen.

3. COLOR CHECK screen
   Allows you to check color shades and brightness of the screen using each color bar.
   Adjust the machine screen using the above check results as guidelines.
   Pressing the 1P and 2P start buttons simultaneously brings you to the SCREEN CHECK screen.

4. SCREEN CHECK screen
   Allows you to check the size and distortion of the screen using the cross-hatched screen.
   Adjust the machine screen using the above check results as guidelines.
   Pressing the 1P and 2P start buttons simultaneously initiates return to the MENU screen.

If you want to return to a normal game screen after checking the test mode, turn off power before turn DIP switch 1-1 on the board OFF, and then turn on power again.

[BATTLE BAKRAID   DIP SWITCH]

DIP SWITCH1			1	2	3	4	5	6	7	8
TEST MODE	NORMAL PLAY		OFF							
	TEST PATTERN		ON							
STARTING COIN	1 CREDIT			OFF						
	2 CREDITS			ON						
COIN 1	1 COIN	1 CREDIT			OFF	OFF	OFF			
	1 COIN	2 CREDITS			ON	OFF	OFF			
	1 COIN	3 CREDITS			OFF	ON	OFF			
	1 COIN	4 CREDITS			ON	ON	OFF			
	2 COINS	1 CREDIT			OFF	OFF	ON			
	3 COINS	1 CREDIT			ON	OFF	ON			
	4 COINS	1 CREDIT			OFF	ON	ON			
COIN 2	1 COIN	1 CREDIT						OFF	OFF	OFF
	1 COIN	2 CREDITS						ON	OFF	OFF
	1 COIN	3 CREDITS						OFF	ON	OFF
	1 COIN	4 CREDITS						ON	ON	OFF
	2 COINS	1 CREDIT						OFF	OFF	ON
	3 COINS	1 CREDIT						ON	OFF	ON
	4 COINS	1 CREDIT						OFF	ON	ON
FREE PLAY					ON	ON	ON	ON	ON	ON
DEFAULT SETTING			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

DIP SWITCH2		1	2	3	4	5	6	7	8
START RANK (Game start difficulty setting)	NORMAL	OFF	OFF						
	EASY	ON	OFF						
	HARD	OFF	ON						
	VERY HARD	ON	ON						
	If the customer is not playing the game due to it's difficulty setting, it is useful to change the game start difficulty to an easier or a more difficult setting.								
TIMER RANK (How the difficulty rate increases during the game)	NORMAL			OFF	OFF				
	LOW			ON	OFF				
	HIGH			OFF	ON				
	HIGHEST			ON	ON				
	If the playing time per customer is to long, it is useful to change the difficulty increase rate to a higher rate and if the playing time is to short to lower the rate.								
PLAYER COUNTS	3						OFF	OFF	
	4						ON	OFF	
	2						OFF	ON	
	1						ON	ON	
EXTRA PLAYER	2,000,000 EACH							OFF	OFF
	3,000,000 EACH							ON	OFF
	4,000,000 EACH							OFF	ON
	NO EXTRA							ON	ON
DEFAULT SETTING		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

DIP SWITCH 3		1	2	3	4	5	6	7	8
SCREEN FLIP	OFF	OFF							
	ON	ON							
DEMO SOUND	ON		OFF						
	NO SOUND		ON						
STAGE EDIT	DISABLE			OFF					
	ENABLE			ON					
CONTINUE PLAY	ENABLE				OFF				
	DISABLE				ON				
INVINCIBLE	OFF					OFF			
	ON					ON			
SCORE RANKING	SAVE						OFF		
	NO SAVE						ON		
NO USE								OFF	OFF
DEFAULT SETTING		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF